

CLEANING

This guide is a summary of the primary requirements in NFPA 1851.



ROUTINE CLEANING

A light cleaning of ensemble and ensemble elements performed by the end user that does not require taking the elements out of service and shall be performed after each use. Start routine cleaning at emergency scene, if possible.

Basic Cleaning Precautions

1. Isolate contaminated ensemble elements at incident and rely on trained personnel or other qualified source to make a determination if elements can be cleaned and decontaminated.
2. Isolate, tag, and bag ensemble elements contaminated with blood or body fluids at emergency scene for assessment by qualified personnel for cleaning.
3. Do not bring soiled or contaminated clothing into home, wash in home laundries, or wash in public laundries unless facility has dedicated business for handling protective ensembles and elements.
4. Don't use commercial dry cleaning as a means of cleaning or decontaminating ensembles unless approved by element manufacturer.
5. Only use an Independent Service Provider (ISP) if they have demonstrated that their process will not compromise the performance properties of the elements.

Minimum Steps for Routine Cleaning

- Examine manufacturer's label/instructions.
- Isolate elements to avoid cross-contamination.
- Brush off debris.
- Rinse with water.
- Lightly scrub item with soft bristle brush.
- Spot clean, if needed.
- If warranted, clean in a utility sink as indicated below (use advanced cleaning if necessary).
- Inspect element.
- Clean again as necessary.

Procedures when cleaning in a utility sink

- 1-Do not overload sink.
- 2-Pre-treat if necessary.
- 3-Do not use water exceeding 105°F.
- 4-Use mild detergent with pH between 6.0 and 10.5, as indicated on container label or in Material Safety Data Sheet (MSDS).
- 5-Wear protective gloves & eye/face splash protection.
- 6-Gently scrub using a soft-bristle brush. Drain water from sink.
- 7-Thoroughly rinse element; repeat

Provisions for routine cleaning of garments

Isolate garment layers to avoid cross-contamination; apply advanced cleaning if full garment must be cleaned.

Provisions for routine cleaning of helmets

If helmet immersion is necessary, remove impact cap; separately wash and dry each element component; do not use mechanical drying.

Provisions for routine cleaning of gloves and footwear

Do not machine dry.

SPECIALIZED CLEANING

Elements that are contaminated with hazardous materials or biological agents need to receive specialized cleaning as necessary to remove the specific contaminant(s). Only use qualified organizations for this purpose.

ADVANCED CLEANING

- A thorough cleaning of ensembles and ensemble elements accomplished by washing the elements with cleaning agents.
- Advanced cleaning is carried out by the manufacturer, a manufacturer-trained organization, verified organization, or verified ISP.
- Advanced cleaning is conducted when elements are soiled and at least at time of advanced inspection (every 12 months).
- Advanced cleaning involves use of washing machine for elements except as prohibited.

Procedures for machine washing

1. Do not overload the machine.
2. Pre-treat heavily soiled or spotted areas if necessary.
3. DO NOT USE chlorine bleach, chlorinated solvents, active-ingredient cleaning agents, or solvents without element manufacturer approval.
4. Fasten all closures, including pocket closures, hook and loop, snaps, zippers, hooks and dees.
5. Wash temperature not to exceed 105°F.
6. Use mild detergent with a pH range of not less than 6.0 and not greater than 10.5 (as indicated on the container or the Material Safety Data Sheet (MSDS)).
7. Ensure that washing machine drum speed (rpm) does not create g-force greater than 100 g.
8. Follow washing machine manufacturer's instructions for proper settings or program selection specified to type of element being washed.
9. Dry the elements (see below).
10. If the machine is to be used for other than protective ensemble elements, rinse out machine by running while empty through a complete cycle with 120°F to 125°F water and detergent.

Additional Advanced Procedures for Garments

- Remove drag rescue device (DRD) prior to laundering, wash and dry DRD in separate mesh bag.
- Where shells and liners are separable, clean and decontaminate those items with like items, i.e. shells with shells and liners with liners.
- Turn separable liners inside out so that moisture barrier is inside for washing and drying.

Additional Advanced Procedures for Hoods

Wash and dry hoods in machine with garment liners.

Additional Advanced Procedures for Helmets

- Remove detachable items from helmet for separate washing and drying.
- Do not machine wash or dry helmets with equipment that produces tumbling or agitation.

Additional Advanced Procedures for Gloves and Footwear

Do not machine wash or dry gloves and footwear with equipment that produces tumbling or agitation.

Air Drying Procedure

1. Place elements in an area with good ventilation.
2. Do not dry in direct sunlight.

Machine Drying Procedure

1. Do not overload the machine.
2. Fasten all closures.
3. Use no-heat or air-dry setting if available.
4. If heat must be used, ensure that the basket does not exceed 105°F.
5. If heat is used, remove garments before they are completely dry.